

6th International Conference on LCA in the Agri-Food Sector

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Agriculture and the food sector are responsible for a large share of environmental impacts and resource use caused by human activity. For certain environmental issues such as the conservation of biodiversity, agriculture is the key driver. For about 15 years now, the Life Cycle Assessment (LCA) method has successfully been used to analyse agricultural production systems and food chains. During the five previous conferences held in Belgium, Sweden and Denmark, the scientific community discussed LCA topics in the agri-food sector. The Sixth International Conference on LCA in the Agri-Food Sector was organised in Zurich on 12–14 November 2008, with the following objectives:

- To show recent developments in terms of methodology, approaches, databases and tools
- To present applications of the LCA methodology in new case studies or case studies showing new aspects in various food chains
- To present successful examples of communicating LCA results to stakeholders and their use in decision making

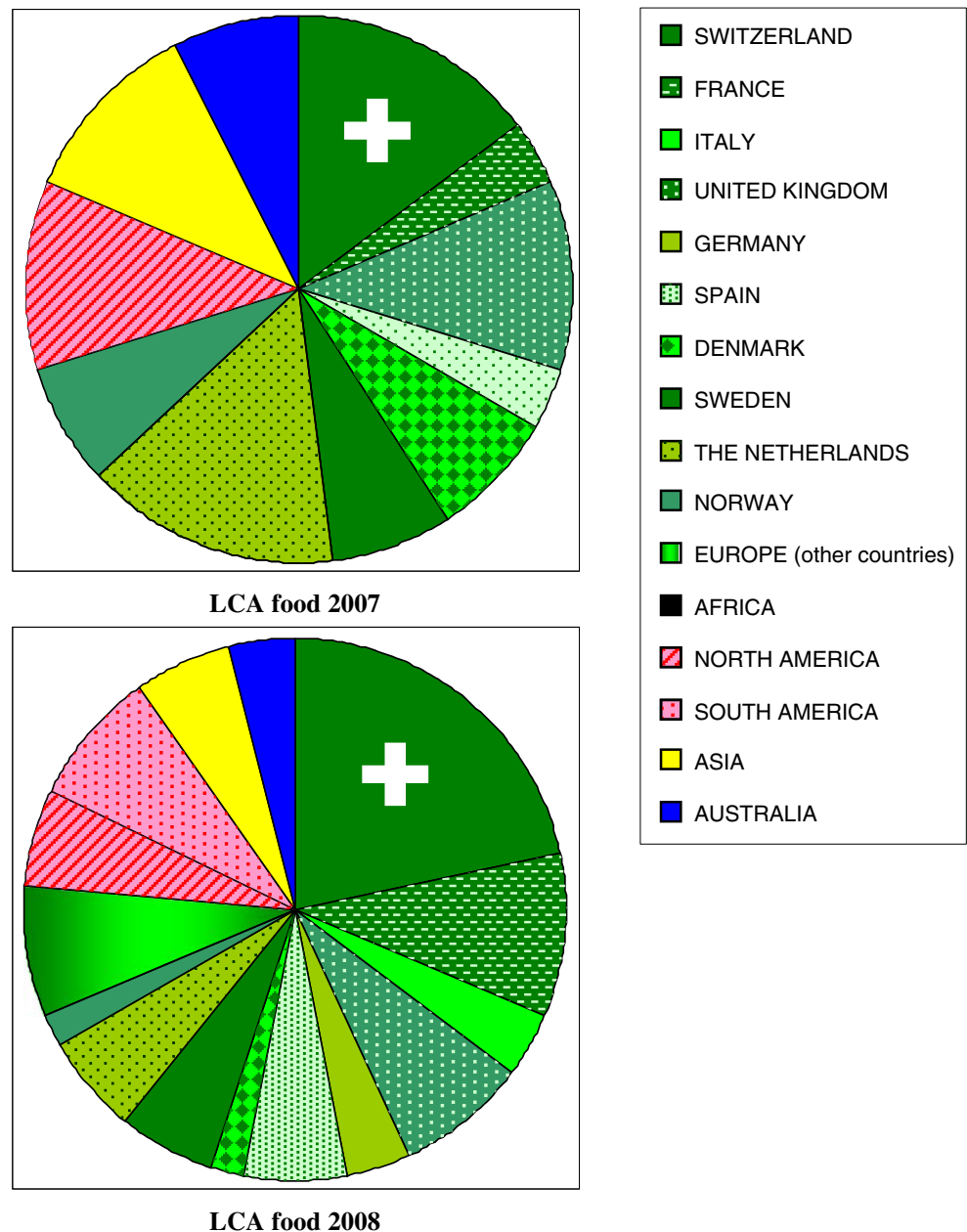
The conference has received a much higher attention than the fifth conference held in April 2007. The number of

participants rose from 61 to 160 and the submitted abstracts from 60 to 150. A total of 51 oral presentations were held during 12 sessions, compared to 27 presentations during the previous conference. The participants also presented 62 posters. These figures illustrate the growing interest and the increasing activities in the field of LCA in the agri-food sector. The participants originated from 32 countries, with an increasing proportion from outside Europe, particularly from non-Organisation for Economic Cooperation and Development (OECD) countries (Fig. 1). Still, three quarters of the participants came from European countries. We were happy to see several new organisations starting work on LCA in the agri-food sector.

An increasing activity was observed in the following fields: databases and tools, assessment of land and water use, ecotoxicity, food processing, decision support and linking to economic assessments (Fig. 2). The contributions from emerging countries were increasing but still scarce. Life cycle and food chain management received more attention than before. There was also an evolution from isolated case studies with limited representativity to a wider scope on sectoral, national or supra-national level (like the EU-27). Methodical progresses have been made in assessing impacts specifically on agriculture (land use, biodiversity and water resources). Several contributions extended the classical environmental LCA to a full sustainability analysis. Some progress has been made on regionalising LCA, but great efforts still have to be made. Progress has also been made on databases and tools.

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Fig. 1 Comparison of the countries of origin of the LCA Food Conference 2007 in Gothenburg and the LCA Food Conference 2008 in Zurich



For future LCA research, we see, amongst others, the following key issues:

- Considerable efforts should be invested in the improvement of methodology. In particular, standard and widely recognised methods for the assessment of land use, water resources and pesticide impacts are still missing, which limits the validity of the results. Pharmaceuticals are ignored in almost all LCAs.
- Despite the fast computers and adapted software, we still see very little assessments of variability and uncertainty.
- We should not forget that the communication to decision makers, stakeholders and the public is a key issue, not only for ensuring funding. The decision makers need not be familiar with the details of the methodology, but they have to understand the results and conclusions, and they must be convinced that the recommendations given are the way forward.

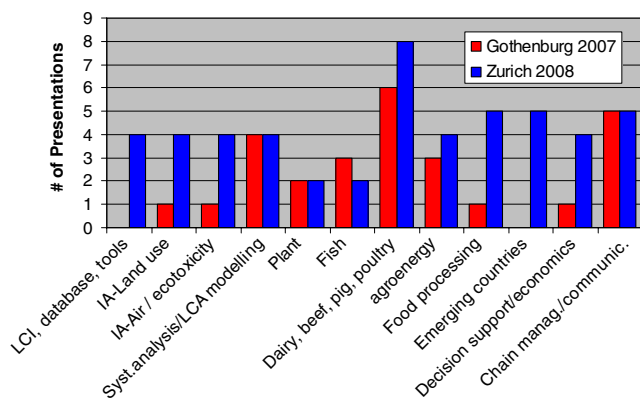


Fig. 2 Distribution of the presentations during the LCA Food Conference 2007 in Gothenburg and the LCA Food Conference 2008 in Zurich

- Last but not least, LCA applications in non-European and particularly non-OECD countries should be promoted. Their potential to make the agri-food sector more environmentally friendly is much bigger than in the European countries, where LCA has its origin. Furthermore, the food consumed in the industrialised countries has its origin in all continents.

The proceedings reflect the full papers of the oral presentations during the conference. All manuscripts have been peer-reviewed by members of the scientific committee. They can be downloaded for free at www.lcafood08.ch.

The seventh conference on LCA in the agri-food sector will take place in Bari on 22–24 September 2010 (www.lcafood2010.uniba.it).